

REMARKS

This response is in reply to the Office Action mailed May 7, 2003. This Office Action stated that the amendment mailed on October 18, 2002, was not entered. Accordingly, this amendment is based on the application as originally filed on May 16, 2001. The amendment which was mailed October 18, 2002, will be treated as if it had never been filed.

These amendments and remarks are a reply to the substance of the Office Action mailed on April 19, 2002. The response on the substance of this Office Action is as follows.

New drawings are submitted herewith as requested by the Examiner in paragraph 5 of the Office Action mailed April 19, 2002. The drawings include the changes requested by the Examiner, namely, the addition of further reference numbers. In addition, the text has been corrected to add reference number 185 and the double uses of the reference number 189 has been corrected. This change can be seen on page 6 of the substitute application as filed.

Enclosed herewith is a substitute application to replace the application as originally filed. Also enclosed is a redline version showing all changes which have been made between the application as originally filed and the substitute application. This redline version is provided for the convenience of the Examiner to more easily see the changes which have been made. The substitute specification contains no new matter.

The first change, which applicants wish to draw the Examiner's attention is on page 1, line 1 of the first full paragraph. Applicants hereby state that the current application is a continuation of the prior U.S. patent application number. Priority was claimed in the application as filed on March 16, 2001, but the exact identity of relationship was not specified. The Examiner pointed out in paragraphs 3 and 4 that the relationship was not specifically stated and therefore requested that a new declaration be provided. Applicants hereby state that the present application is a continuation of the prior U.S. Patent Application Serial No. 09/169,894. Accordingly, the photocopy of the declaration of this prior application is acceptable.

The claims that have been withdrawn from consideration have been cancelled from the application. New claims 21-24 are submitted herewith. The numbering of the claims begin at number 21 because the amendment filed October 18, 2002, was treated as having not

been filed, however, if the Examiner believes that the claims should have started at claim 25 the Examiner is welcome to change the claim numbering if he wishes to do so.

Claim 1 has been amended to include the contour area as shown in Figures 1A-1E. As explained on page 6, last full paragraph, and page 7, first full paragraph, of the substitute application as filed (see paragraph 30, page 5 of the application as originally filed) the access piece 110 is shaped to form a fingertip contour 113. As a user finger approaches the enclosure 100 to access the sensor 130, the user touches the access piece 110 in this contour area 113 with the fingertip, because the fingertip naturally fits into the area 113. As also pointed out in the original application as filed, when the access piece 110 is moved to an open position with the top portion of the fingertip placed in the contoured area 113, the top of the fingertip 110 extends beyond the sensor 130 and the fingerprint core is aligned with the sensor 130, as now claimed in claim 21.

The amendment specifically states that the contoured area has a "rounded, cup-shaped upper region." Further, this fingertip contour area is "configured to receive thereon a rounded tip portion of a fingertip." This particular feature is not shown or obvious from the prior art. The Examiner cited Japanese Publication No. 4,88586 to Tadashi Amano as showing a concave surface portion as claimed in original claim 6. Applicants point out substantial differences between the slidable cover 23 and the fingertip contour portion 113 of the present invention as now claimed in claim 1 new claim 21. In particular, in the Amano device the front of the fingertip pushes against the flange 113. The flange 113 has a slight curvature to be abutted against by the front of the fingertip and, as shown in Figure 4 of Amano, is actually contacted by the fingernail itself. The fingertip does not rest on the flange 113 of Amano. There is no cup-shaped upper region to receive a tip portion of a fingertip.

The present invention as now claimed is distinctly different. According to the present invention, the contour portion 113 has a contour in an upper surface thereof to receive a tip portion of the fingertip itself. In addition, as specified in the claim, it is configured to receive thereon a rounded portion of the fingertip. This feature is not shown in or obvious from the Amano reference. Accordingly, allowance of claims 1 and 21 is respectfully requested.

Submitted herewith are dependent claims 22-24 which are also allowable for reasons independent of the allowability of claim 21. Claim 22 contains the limitation that the spring member is in the same plane and in line with the movable member itself. As can be seen by viewing Figure 1E, the spring member 180 is generally in the same plane with and is directly behind the movable member 110. They are aligned along the same line of plane for the line of movement. This provides a high degree of reliability for long-term operation as well as to ensure that the slide 110 always returns to the correct position without jamming or breakage.

The structure of Date, Japanese Publication No. 62-222,697 is distinctly different. This can be seen by viewing Figure 1 of the Date reference, together with Figure 2 the spring itself 114 is positioned in a much lower plane and in fact is below the sensor structure 2 itself. A leverage arm 9 must descend from the slide 1 to which is connected a spring guide member 10 that is fitted with the spring 14. This creates a lever arm which has a moment of torque about it. Such a device may easily become jammed in the support 12 or adjacent the sensor 2. More complexity of structure and operation is also required in order to ensure repeated smooth operation. As the device returns, there is again further opportunity for jamming and errors. Further, since the spring 14 is not in the same line of motion as the slide itself, some portion of the force from the spring will not be directly translated to the slide 1 thus increasing the likelihood of jamming and further increasing the need for a stronger spring 14. Since the spring 14 is applying its force to a different member other than the slide itself, some translation of force must take place further weakening the effect of the spring. Accordingly, the present invention which has the spring 180 in the same line of motion and the same plane as the movable access member 110 is believed patentable.

A further patentable feature is the location of the switch 160. As noted in the specification, in a preferred embodiment the slide 110 is grounded so that when a user places their finger thereon all charge is bled off and ESD protection is provided. Thus, the slide 110 is at a first electrical potential. The switch 160 of the present invention is a simple micro button which is depressed mechanically by the interaction of the slide 110 as it passes over the button 160. There is no electrical connection between the movable slide member 110 and the actual circuit itself. Rather, the micro switch 160 contains a mechanical member which has the

switching contacts therein. This is distinctly different from the prior art of Date and Salatino. In Salatino, a completely different activation mechanism must be required such as an impedance sensor and an oscillator to determine when a finger has been placed on a sensor. Certainly, Salatino does not teach a simple micro switch. In addition, the switch in Date has contacts 11 and 13 as shown in Figures 1 and 2. These contacts are electrical contacts which are part of the movable access member itself. Accordingly, the provide changing the electrical properties of the slide 1 of Date which must be either properly insulated or configured in a manner to be compatible with the electrodes 11 and 13 which are physically coupled to the slide 1. This creates additional complexities and difficulties in the slide portion since both mechanical and electrical properties need to be taken into account. The present invention avoids these issues by using an easily compressible micro switch 160 without having to be concerned of the electrical properties as a switch electrode of the movable access piece 110.

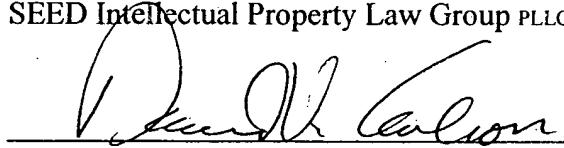
The Commissioner is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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